INSTALLATION INSTRUCTIONS

URC-2
PROGRAMMABLE REMOTE CONTROLLER

INTRODUCTION

The URC-2 is a highly sophisticated learning remote, capable of storing single or macro IR commands on each of 8 banks (or layers) of 48 keys. Unlike most learning remotes, the bank (source) keys, in addition to selecting the desired source, are capable of storing macro commands. This permits an immediate response of the source or system to a single key press. The URC-2 will send any required number of commands in sequences (macros) from any desired key for control of extensive A/V systems (limited only by memory). Lighted keypad panel comes on with any motion or key press and, to conserve batteries, goes off after 6 seconds of inactivity. The lighted panel can also be deactivated (and reactivated) at will, to further extend battery life.

FEATURE SUMMARY

The needs of the professional A/V installer were seriously taken into consideration in the design of the URC-2, as the following features list will attest. However, its ease of programming for basic A/V systems makes it well suited for small systems as well.
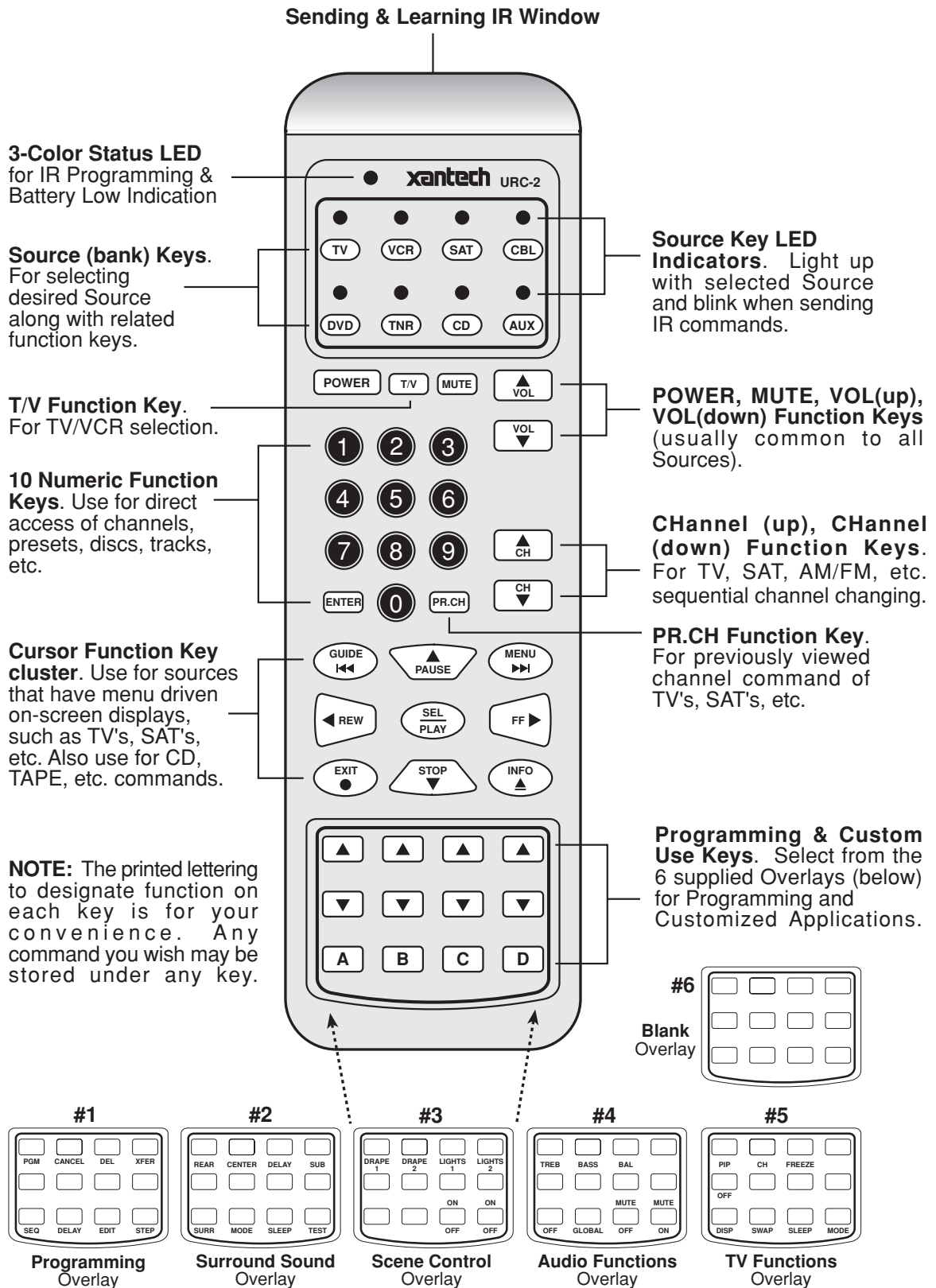
• 8 Source (bank) keys with LED status indicators.

• Programming & battery condition LED indicator.

• 40 Function (operational) keys.

• All 48 keys illuminate for ease of night viewing.

• Auto wake-up with motion always lights up the last active Source LED.

• Auto sleep & wake-up of keypad lighting conserves battery power.

Fig. 1

• Programming can be accomplished on the unit itself or by using Xantech's DD4 Dragon Drop-IR™ Windows® based PC program (optional).

• COM Port (RS232 compatible) permits cloning of programmed contents to other URC-2's. It also permits transfer of programming from DD4 Dragon Drop-IR™ (optional).

• Programming system is similar to Xantech's Smart Pad$_3$ keypads.

• Programming functions include; single or sequenced (macro) commands, delays, delete and step editing (with insert and delete).

• Additional advanced functions available **only** with optional DD4 Dragon Drop-IR™ software include; tiering, cursor shift, punch, copy, paste, changeable code groups, adjustable sleep timeout, bank track programming and PC back-up of programmed contents. Also, a Smart Pad$_3$ project may be dumped to a URC-2 and the easily carried URC-2 then used to download the project to all desired Smart Pad$_3$'s in the various rooms.

• Super Cap back-up preserves memory (for more than 8 hours) when changing batteries.

KEYPAD DESCRIPTIONS

The following are descriptions for the various keys and LED's.

Sending & Learning IR Window

3-Color Status LED for IR Programming & Battery Low Indication

Source (bank) Keys. For selecting desired Source along with related function keys.

| TV | VCR | SAT | CBL |
| DVD | TNR | CD | AUX |

Source Key LED Indicators. Light up with selected Source and blink when sending IR commands.

T/V Function Key. For TV/VCR selection.

POWER T/V MUTE ▲ VOL

POWER, MUTE, VOL(up), VOL(down) Function Keys (usually common to all Sources).

VOL ▼

10 Numeric Function Keys. Use for direct access of channels, presets, discs, tracks, etc.

1 2 3
4 5 6
7 8 9
ENTER 0 PR.CH

CHannel (up), CHannel (down) Function Keys. For TV, SAT, AM/FM, etc. sequential channel changing.

▲ CH

CH ▼

PR.CH Function Key. For previously viewed channel command of TV's, SAT's, etc.

Cursor Function Key cluster. Use for sources that have menu driven on-screen displays, such as TV's, SAT's, etc. Also use for CD, TAPE, etc. commands.

GUIDE ◄◄ ▲ PAUSE MENU ►►
◄ REW SEL PLAY FF ►
EXIT ● STOP ▼ INFO ▲

NOTE: The printed lettering to designate function on each key is for your convenience. Any command you wish may be stored under any key.

▲ ▲ ▲ ▲
▼ ▼ ▼ ▼
A B C D

Programming & Custom Use Keys. Select from the 6 supplied Overlays (below) for Programming and Customized Applications.

#6
Blank Overlay

#1

| PGM | CANCEL | DEL | XFER |
| SEQ | DELAY | EDIT | STEP |

Programming Overlay

#2

| REAR | CENTER | DELAY | SUB |
| SURR | MODE | SLEEP | TEST |

Surround Sound Overlay

#3

DRAPE 1	DRAPE 2	LIGHTS 1	LIGHTS 2
		ON	ON
		OFF	OFF

Scene Control Overlay

#4

TREB	BASS	BAL	
		MUTE	MUTE
OFF	GLOBAL	OFF	ON

Audio Functions Overlay

#5

PIP	CH	FREEZE	
OFF			
DISP	SWAP	SLEEP	MODE

TV Functions Overlay

QUICK START

Perform the following basic steps to begin using the URC-2 immediately.

Installing Batteries

1. Turn the unit over and remove the battery cover. Press the cover Tab in the direction of the arrow on Tab and lift up. See **Fig. 3**.
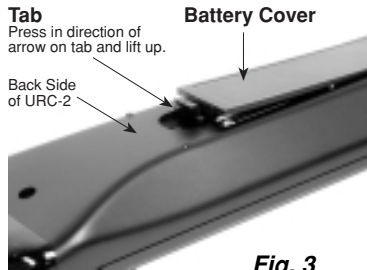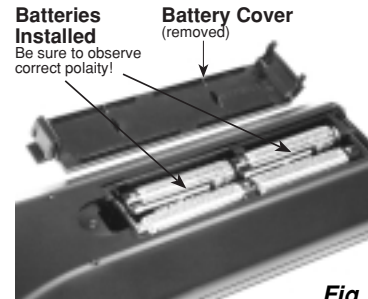
Tab
Press in direction of
arrow on tab and lift up.

Battery Cover

Back Side
of URC-2

Fig. 3

**Batteries
Installed**
Be sure to observe
correct polaity!

Battery Cover
(removed)

Fig. 4

2. Install 4 "AAA" Batteries (Alkaline recommended). Refer to **Fig. 4**. Be careful to observe correct polarity for each battery as shown and as marked on the inside of the battery compartment.

3. Reinstall battery cover.

Teaching Single IR Commands

1. Place the URC-2 and the "teaching" remote on a flat surface, facing each other as shown in **Fig. 5**.

2. Place the **Programming Overlay #1** (supplied) over the bottom three rows of keys on the URC-2. Refer to **Figs. 2 & 6**. **NOTE:** Do not remove the adhesive backing from this overlay for permanent attachment unless you have no intention of using the other overlays in the future.

3. Press and release the **PGM Key** & any desired **Source Key** <u>both at the same time</u>. Refer to **Fig. 6**.
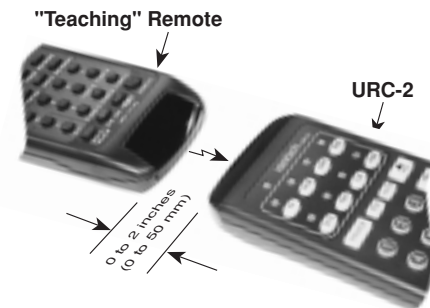
    The Status LED will blink Green and the Source LED will be steady Red.

"Teaching" Remote

URC-2

0 to 2 inches
(0 to 50 mm)

Fig. 5

4. Press and release a **Source Key** twice (or a **Function Key** once for the selected source) under which you wish to place an IR command.

    The Status LED will be a steady Green, waiting for an IR signal.

    NOTE: It is necessary to press different Source Keys twice, once to select the bank, the next to select it as a key to learn IR data.

5. Press briefly the **desired key** on the "Teaching" Remote.

    The URC-2 Status LED will blink Amber briefly, indicating the command was learned, then blink Green, waiting for your choice of another key.

    NOTES:

    a) If the Status LED blinks Red two times, then steady Green, an errror has occurred and the command has not been learned. When this happens, simply repeat step 5, but this time vary the distance and/or the length of time you press the key on the "Teaching" Remote.
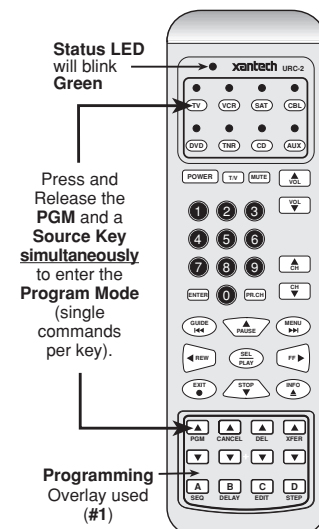
Status LED
will blink
Green

Press and
Release the
PGM and a
Source Key
simultaneously
to enter the
Program Mode
(single
commands
per key).

Programming
Overlay used
(**#1**)

Fig. 6

b) If you allow more than 30 seconds to elapse between key presses, the URC-2 will automatically leave the Program Mode (enters Sleep Mode).

If this occurs, simply repeat steps 3 through 5.

6. Pick **another key** and repeat steps 4 and 5 for all commands you wish the URC-2 to learn.

7. When finished, press **CANCEL** and the active **Source Key** simultaneously to leave the Program Mode (or allow it to time out by waiting 30 seconds). Refer to **Fig. 7**.

You may now test the newly learned commands by pressing the keys you programmed.

When you press a key with a stored command, the active Source LED will blink indicating transmission of the command. No blinking will occur when keys are pressed that do not have commands.

Deleting Commands

If a command does not work, or you wish to change a command for any reason, proceed as follows:

8. Simply repeat steps 4 and 5. This will "write over" the original command, replacing it with the new.

If you wish to delete a command from a key or from a number of keys, proceed as follows:

9. Press **DEL** and a **Source Key** simultaneously. This puts you in the Delete Mode. The Status LED will blink Red.

10. Press the key you wish to delete.

The Status LED will blink Amber briefly, indicating the command was deleted, then blink Red, waiting for your choice of another key.

11. Repeat step 10 for all keys you wish to delete.

12. When finished, press **CANCEL** and the active **Source Key** simultaneously to leave the Delete Mode (or allow it to time out by waiting 30 seconds).

Status LED will go off

Press and Release the **CANCEL Key** and the active **Source Key** simultaneously to leave the **Program Mode**

Fig. 7

PROGRAMMING SEQUENCES (Macros)

You can teach more than one IR command per key by using the Sequence Programming feature. This permits several commands to be executed by one key press to carry out a macro of several system functions. To teach a sequence of commands to a single key, do the following:

1. Press **SEQ** and a **Source Key** simultaneously. This puts you in the Sequence Mode. The Status LED will blink Green.

2. Now press the **desired target key** just as when doing regular IR programming (if a different Source key, press twice; if a Function key, press once).

The Status LED will be a steady Green, indicating that it is ready for IR input.

3. Press briefly the **desired key** on the "Teaching" Remote.

The URC-2 Status LED will blink Amber briefly, indicating the command was learned, then go steady Green, waiting for you to input another command in the sequence.

NOTES:

a) If the Status LED blinks Red twice, then steady Green, an error has occurred and the command has not been learned. When this happens, simply repeat step 3, but this time vary the distance and/ or the length of time you press the key on the "Teaching" Remote.
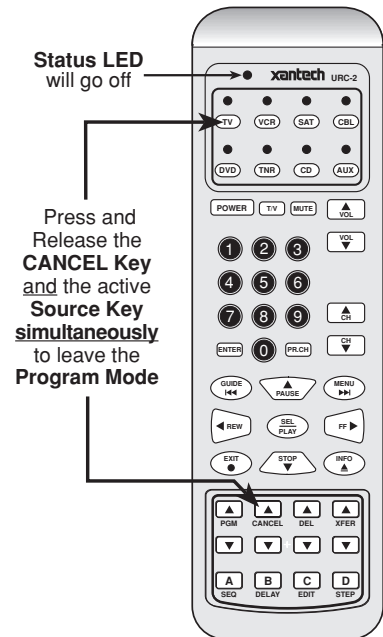
b) If you allow more than 30 seconds to elapse between key presses, the URC-2 will automatically leave the Sequence Mode (enters Sleep Mode).

If this occurs, simply repeat steps 1 through 3, or go to the EDIT mode.

4. Repeat step 3 for as many IR commands as you want in the sequence.

5. When finished with a particular key, press the **CANCEL key** once. The Status LED will flash Green, indicating that a different Source or Function key may be selected to enter another sequence (repeating steps 2, 3 & 4 above).

6. To **exit** the Sequence Mode completely, press **CANCEL** once, then press **CANCEL** <u>and</u> the active **Source Key** <u>simultaneously</u>. The Status LED will go out. Refer to **Fig. 9**.

PROGRAMMING DELAYS

Some IR controlled units may require an increased time interval between certain commands, particularly between a Power ON command and a Play command, for instance, to operate correctly.

• When programming sequences, you can place delays between such commands so that sufficient time is given for all functions to execute.

Status LED
will blink Green

Press and Release the **SEQ** and a **Source Key** <u>simultaneously</u> to enter the **Sesquence** (Macro) **Mode**

Fig. 8

• The URC-2 allows the insertion of timed delays at any point within a sequence. Proceed as follows:

1. Enter the **Sequence Mode** and begin your sequences as described previously.

2. Just before you enter a command that requires a delay, press the **DELAY key** to enter the DELAY mode. The Status LED will flash Amber.

3. Now press the **DELAY key**, successively, to enter the number of seconds of delay you want. (Each press of the DELAY key, *after* the initial press, adds 1 second, up to a maximum of 30 seconds).

   NOTE: The URC-2 system already includes a 1/3 second interval between each command placed in a sequence. Each second you add will be in addition to the 1/3 second that already exits.

4. Press **CANCEL *once*** to exit from DELAY mode and return to Sequence mode.

5. Next, enter the command that requires the delay. Continue programming the remaining commands you desire in the sequence. Just before entering another command requiring a delay, repeat steps 2, 3 and 4 above.

6. When finished with the sequence, exit **Sequence Mode** per **Fig. 9**. The delay times entered are now stored as part of the sequence.

Status LED
will go off

Press **CANCEL once**, then Press and Release the **CANCEL Key** <u>and</u> the active **Source Key** <u>simultaneously</u> to leave the **Sequence Mode**

Fig. 9

Sending IR Commands

Once you have "taught" the desired IR commands and/or sequences to the desired keys, and have exited from the programming modes, you may send the commands to the controlled equipment simply by pressing the keys that relate to them. It is recommended that you test each set of commands you have placed in a bank before proceeding to the next bank.
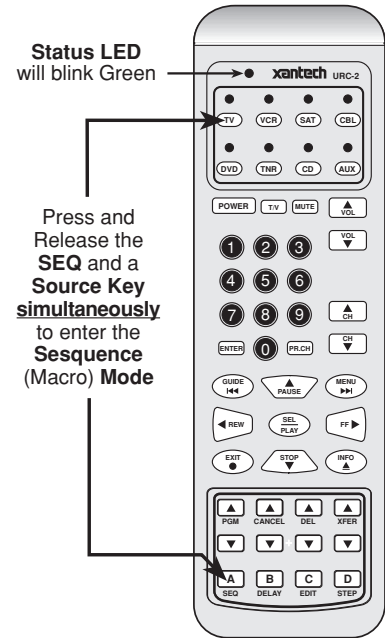
Controllers

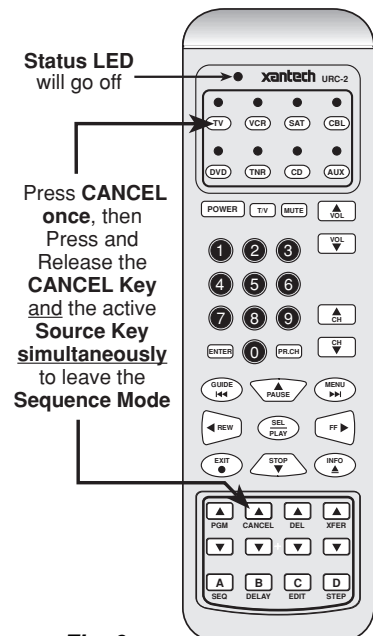### Exceeding Memory Limits

With the large 32k memory capacity of the URC-2, it is highly unlikely that you will ever exceed the memory limit, even with large sequences. If you should exceed the limit, however, the Status and Source LED's will blink alternately Red 4 times, then go to steady Green.

You may then need to "off-load" (delete) some commands and rearrange your project to stay within the memory limit.

SEQUENCE EDITING

Long sequences (probably with some delays interspersed between commands) will likely have to be edited and experimented with to achieve correct timing control of the associated equipment.

• Editing is done in the **EDIT** mode using the **STEP**, **DEL**ete, **PGM** and **DELAY** keys.

• It is best to think of the command sequence as a set of items laid end to end. When you activate the EDIT mode, it sets the edit pointer to the front of this string of items.

• You use the STEP key to individually transmit and step through each command in the sequence. This lets you see which commands are where, if all are working correctly, etc.

• If you activate a command that does not work or is incorrect, you can press the **DEL key** to remove it and then the **PGM key** to store a new command in its place.

• Additionally, you may insert delays into the sequence, as needed, for slow responding equipment.

• In this way you can work through the entire sequence, fixing problems as you go.

Editing a Sequence

1. Press **EDIT** and a **Source Key** <u>simultaneously</u>. This puts you in the EDIT Mode. The Status LED will blink Green.

2. Press the target key having the sequence you wish to edit (if a different Source key, press twice; if a Function key, press once).

   The Status LED will be a steady Green, indicating that the edit pointer (insertion point) will be at the first item in the sequence.

3. Press the **STEP key** to preview the first command in the sequence.

4. The command transmits. Watch to see what happens with the controlled unit. (**Note:** The active Source LED blinks each time a command is sent).

5. The edit insertion point will now be positioned in front of the next command in the sequence.

Deleting a Command From a Sequence

6. If the command you just transmitted did not work and you wish to delete it, press the **DEL key**. The Status LED lights Red, then goes to Green, indicating the command has been deleted.

   You may now **STEP** to the next command.

   The DEL key will always delete the command that was last transmitted.

Inserting a Command

7. To insert a new or replacement command, press the **PGM key**. The Status LED will turn steady Amber, awaiting a command from the "teaching" remote.

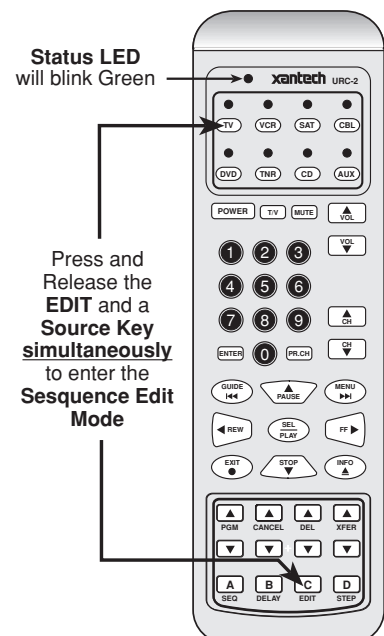8. Input the **IR command** in the normal manner.

Status LED will blink Green

Press and Release the **EDIT** and a **Source Key** <u>simultaneously</u> to enter the **Sesquence Edit Mode**

Fig. 10

9. When stored, the Status LED will flash Amber, then go Green. You may now STEP to the next command.

   NOTE: You do not have to delete anything to add a new command to the sequence.

Inserting a Delay

A delay may also be inserted in a similar manner.

10. Step through the sequence to a place just ahead of the command where you wish to insert a delay.

11. Press the **DELAY key**. The Source LED will blink Amber.

12. Enter the desired delay time (see **Programming Delays**, step 3).

13. Press **CANCEL** once to exit Delay Mode. The Source LED will turn Green, indicating the delay is now stored. You may now STEP through the remaining commands in the same manner until done.

   NOTE: If you wish to step through the sequence again for further checks and editing, simply press **CANCEL**, then the **target key**, then the **STEP key**.

   When you have finished editing, **exit** the EDIT Mode completely by pressing **CANCEL** once**,** then **CANCEL** <u>and</u> the active **Source Key** simultaneously. The Status LED will go out. Refer to **Fig. 11**.

Status LED will go off

Press **CANCEL once**, then Press and Release the **CANCEL Key** <u>and</u> the active **Source Key simultaneously** to leave the **EDIT Mode**
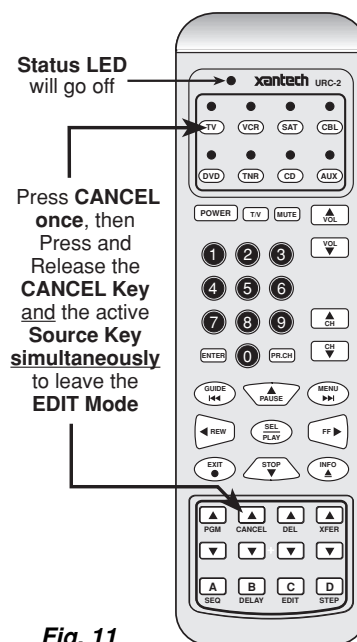
Fig. 11

Restore

In rare instances, while programming the URC-2, or cloning from one to another, the unit may lock up and not respond to any key presses. If this occurs, temporarily **remove one battery, then reinstall it**. This will reset the unit and restore operation. No user programming will be lost.

Clearing all Memory

If, for any reason, you wish to clear all programming from the unit, press the **PGM** and the **SEQ** keys **simultaneously**, then release. Within 1 second, **simultaneously** press the **DEL** and **EDIT** keys and release. Refer to **Fig. 12**. The active Source (bank) LED will blink once to confirm the action.

• Bear in mind that **all previous programming will be lost!**

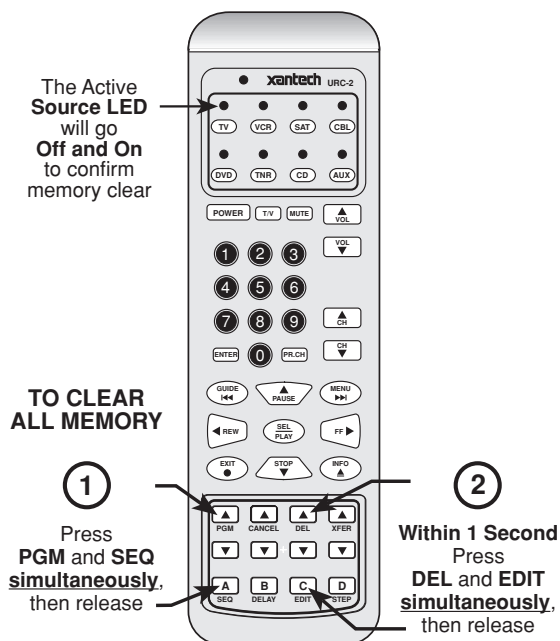• You may now proceed to reprogram the URC-2 from scratch.

The Active **Source LED** will go **Off and On** to confirm memory clear

TO CLEAR ALL MEMORY

① Press **PGM** and **SEQ** <u>simultaneously</u>, then release

② **Within 1 Second** Press **DEL** and **EDIT** <u>simultaneously</u>, then release

Fig. 12

CLONING

When you have finished programming and have checked all commands for proper operation, you are now able to copy (clone) the contents to other URC-2's, if desired. This will save you the tedium of repeated programming when you want identical commands in additional URC-2's. Refer to **Fig. 13** and proceed as follows:
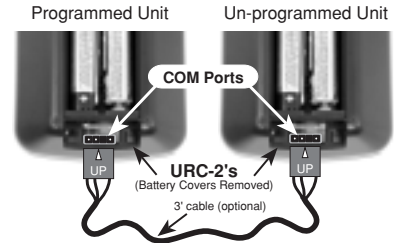
Programmed Unit   Un-programmed Unit

COM Ports

URC-2's
(Battery Covers Removed)
3' cable (optional)

Fig. 13

1. Using a 3' COM Port cable (optional, see your dealer) , simply plug it into the **COM** Port of each unit as shown in **Fig. 13**.

2. On the programmed unit, press both the **PGM** and the **XFER** keys **simultaneously**, then release. Refer to **Fig. 14**.

   The Status LED will flash Green and Amber alternately on both units while a copy of the memory contents is transferring to the unprogrammed unit. You may "clone" as many URC-2's as desired by repeating this process.

   NOTE: If transfer does not complete or the Status and Source LED's blink Red, remove a battery from each unit, reinsert and try again.

USING THE SUPPLIED OVERLAYS

There are six overlays supplied that fit over the twelve lower "Custom Use" keys on the URC-2 (**Fig. 15**).

• Overlay #1 is used specifically when programming, as explained previously (**Figs. 2** & **6**).

• Overlays #2, #3, #4, & #5 may be used to identify IR commands needed for advanced custom installation applications, or simply a few keys you can use for extra commands you may want that cannot be placed logically on other keys.

• When you have picked the overlay you want to use, peel off the protective adhesive cover and press it into place over the 12 keys.
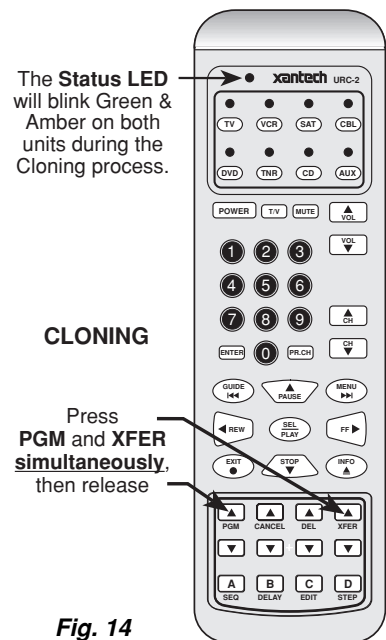
   CAUTION: The Programming Overlay (#1) would not normally be permanently attached, unless you have no intention of using the other overlays at a later time. Also, be sure to keep the Programming Overlay (#1) for future programming needs.

• Be careful to align the overlay accurately, so that it does not interfere with the operation of the keys.
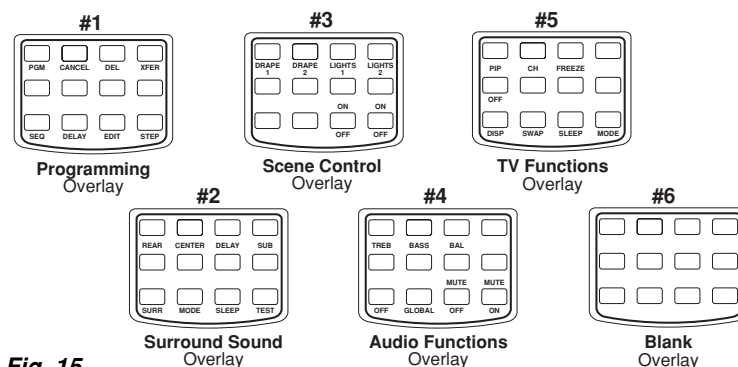
The **Status LED** will blink Green & Amber on both units during the Cloning process.

CLONING

Press **PGM** and **XFER** **simultaneously**, then release

Fig. 14

#1
PGM CANCEL DEL XFER
SEQ DELAY EDIT STEP
Programming Overlay

#3
DRAPE 1 DRAPE 2 LIGHTS 1 LIGHTS 2
ON ON
OFF OFF
Scene Control Overlay

#5
PIP CH FREEZE
OFF
DISP SWAP SLEEP MODE
TV Functions Overlay

#2
REAR CENTER DELAY SUB
SURR MODE SLEEP TEST
Surround Sound Overlay

#4
TREB BASS BAL
MUTE MUTE
OFF GLOBAL OFF ON
Audio Functions Overlay

#6
Blank Overlay

Fig. 15

ADVANCED PROGRAMMING WITH DD4 SOFTWARE

The COM Port (**Fig. 13**), in addition to cloning, allows the URC-2 to be programmed using Xantech's optional DD4 Dragon Drop-IR™ system, with the ease and efficiency of your Windows®-based PC. Complete "virtual" programming of any configuration of the URC-2 (as well as the Xantech Smart Pad$_3$ and Waterpad keypads) is possible. All commands can be easily tested while still in the "virtual" stage, prior to transferring to a real URC-2.

While all the programming previously mentioned in this manual can be done manually on the URC-2, ***the following additional advanced functions can only be done with the optional DD4 system***:

1. **Tiering**. The ability to program sequences onto two tiers or levels on any Source or Function key. The 2nd tier is accessed by a "**Push & Hold**" of the tiered key. This is very useful when working with related commands, such as CD Scan that you might want to work with the same key as Track Skip. After tiering is programmed, the 1st tier is activated when the key is pressed for less than 1 second. The 2nd tier is accessed by a "Press & Hold" of the same key for more than 1 second.

2. **Cursor Shift**. This feature allows the Cursor Function Key Cluster (refer to **Fig. 2**) to be shifted between Tier 1 and Tier 2 commands, without the necessity of using "Push & Hold". This allows more rapid execution of Tier 2 commands for some systems (such as DVD control).

3. **Punch**. Allows commands that are common to all 8 Sources (banks), such as Volume or Mute, to be "Punched Through" to all 8 banks. This avoids the tedium of teaching the same command to the same key 8 times (one time for each bank).

4. **Copy & Paste**. Allows you to Copy single or sequenced commands from any given key and Paste them to any other key of the same type* without having to relearn them.

    *Of the same type means that you can Copy & Paste between Source Keys and between Function Keys, but ***not*** between Source and Function Keys.

5. **"Sleep" Timeout**. The URC-2 turns off the lighted keypad and the active source LED to "Sleep" mode to conserve battery power. As received from the factory, the default setting for the URC-2 is 6 seconds, beginning after the last key press. Using DD4, the time-out value can be changed over a range of 1 through 10 seconds.

6. **Changeable Code Groups**. Allows the URC-2 IR Code Group to be changed to match a specific Smart Pad$_3$ Code Group in advanced control systems. This, for instance, would allow a URC-2 to operate the Speaker Relay Muting and Bank Tracking functions on such a Smart Pad$_3$ via an IR receiver connected on the same IR network.

7. **Bank Track Programming**. Each Source (bank) key of a URC-2 outputs a Bank Tracking Code to cause the Source indicators on Smart Pad$_3$'s to follow the Source selected by a URC-2 via an IR receiver connected on the same IR network. These codes can be changed via DD4 to more logically work with source button arrangements on Smart Pad$_3$'s.

8. **PC Back-Up of Programmed Contents**. When a URC-2 project is finished, the "virtual" keypad file can be stored for future client reference. If, for some reason, the programming in a URC-2 is lost, it can be quickly restored from these files.

9. **URC-2 Program Transfers to Smart Pad$_3$'s**. A Smart Pad$_3$ project may be dumped to a URC-2 and the easily carried URC-2 then used to download the project to all desired Smart Pad$_3$'s in the various rooms. The URC-2, in this way, serves as a **temporary** storage medium for the Smart Pad$_3$ project. The project so stored will not match the key arrangement of the URC-2.

    To accomplish the transfer, you would simply plug a COM Port cable between the URC-2 and an LM110 or PM110 in the same manner as shown in **Fig. 13**. Be sure the LM110 or PM110 are powered. Then execute the transfer (clone) per **Fig. 14**.

Controllers

10. **Factory Learned IR Commands.** Certain atypical IR commands that are not learnable, or those that operate more correctly when learned with special techniques at Xantech, plus a library of IR codes for Xantech products, are available on the CD ROM that comes with DD4. These, and the most recent updates to these files, are also available on the Xantech web site at **www.xantech.com**. Please use them whenever possible to save time and to have cleaner operating code.

BATTERY REPLACEMENT

When the batteries decline to the point where they need replacement, the Status LED on the URC-2 will begin to glow or blink Amber with a command signal. At this point the unit may default to the TV bank and/ or there will be erratic response to IR commands.

• Simply remove the old batteries and replace them with 4 new "AAA" Batteries (Alkaline), referring to **Figs. 3** & **4**.

• Memory contents, without the batteries, will be retained for 8 hours or more, giving you ample time for replacement.

Conserving Battery Power

The length of time the batteries will last is highly variable, since it depends on how frequently the remote is used. If you find battery consumption higher than expected, do the following to maximize battery life:

1. Use only high quality Alkaline batteries (AAA) for replacement.

2. If most of your URC-2 usage does not require the lighted panel, battery life can be extended considerably by turning it off so that it does not come on when moved, or when a key is pressed.

   Turning the Lighted Panel OFF. Simply press the VOL Up and VOL Down buttons simultaneously until you see the panel turn OFF (5 seconds).

   Turning the Lighted Panel ON. Turn it back on at any time by pressing the VOL Up and VOL Down buttons simultaneously until you see the panel turn ON (5 seconds).

   NOTE: The source key LED's will still light up to show last selected source even when the panel lighting is OFF.

3. If the URC-2 has been programmed using the DD4 software, the **"Sleep" Time-out** can be adjusted as referred to in item 5, page 12. The shorter the time, the lower the battery consumption.

TROUBLESHOOTING

If you encounter problems, review each of the following items and take corrective action as described. If problems persist, contact Xantech Technical Support.

1. **The unit does not consistently learn IR commands.** The **Status LED** blinks Red frequently (error) or the steady Green stays on (not accepting the command).

   This can occur if you hold the "teaching" remote too far away, at too great an angle, or offset too far vertically from the front of the IR window of the URC-2. It may also occur if there is IR interference present.

   Do the following:

   a) Be sure the batteries in the "teaching" remote are fresh.

   b) Repeat the learning process as needed, varying the distance, angle and alignment between the two remotes. In some cases, you may need to move the units close enough to touch to get sufficient signal strength from the "teaching" remote.

c) On some "teaching" remotes, the internal IR emitter is considerably offset from the center of the case. Also the "learning" sensor on the URC-2 is somewhat off center as well ... it is in-line with the SAT key LED. You may have to experiment with lateral displacement of the remotes to get the emitter and sensor devices in good alignment.

d) Experiment with different key press times on the "teaching" remote. Usually a brief "tap" is all that is necessary.

e) Be sure there are no sources of strong IR interference (such as CFL lamps, TVs, Neon lighting, etc.) near the URC-2. Shade the IR window of the URC-2 if necessary.

2. **The 2nd URC-2, after a Cloning Transfer, does not output IR commands.**

Corrupted data in the 2nd URC-2 may have prevented a proper data transfer.

a) Do a Clear Memory procedure on the 2nd URC-2 (**Fig. 12**).

b) Repeat the **Cloning** procedure (**Figs. 13** &**14**).

3. **The unit does not respond to any key presses.**

In rare instances, while programming the URC-2, or cloning from one to another, the unit may lock up and not respond to any key presses.

If this occurs, temporarily **remove one battery, then reinstall it**. This will reset the unit and restore operation. No user programming will be lost.

4. **Unit will not learn IR commands from certain brands and models of remotes.**

a) Because of the wide variety of IR coding and timing relationships (there are no industry standards), there are some IR commands that are not learnable by the URC-2 or the DD4 Dragon Drop-IR system.

Be sure to test all components first to see that their IR command codes are learnable and executable by the URC-2 before selecting final components for the system.

To aid you in this selection, see **CAUTION** card included with these instructions for the latest information relating to code compatibility.

NOTE: DD4 Users. Certain IR commands that are not normally learnable, or those that operate more correctly when learned with special techniques at Xantech, plus a library of IR codes for Xantech products, are available on the CD ROM that comes with DD4. These, and the most recent updates to these files, are also available on the Xantech web site at **www.xantech.com**. In addition, if necessary, they can be obtained from Xantech on a 3-1/2" floppy disc. Contact Technical Support for details.

b) Components using IR carriers higher than 71 kHz cannot be learned directly. Most are learnable, however, when down-converted by Xantech products such as the 291P, PMS12, 291-455, MS455, etc.

Refer to the Xantech Product Catalog and contact Technical Support for details. Be sure you have the Make and Model number of the component and its remote before contacting Technical Support.

Controllers

SPECIFICATIONS

Memory: 32 kbytes SRAM (super cap. backed)

IR Carrier Frequency: 31.25 kHz to 71.50 kHz

Range:Up to 70' (Depends on controlled equipment and local conditions)

Number of Keys: 48 (8 Source, 40 Function)

Learning System: Direct Learning or by PC with DD4 Software (optional)
                 (Similar to Smart Pad$_3$)

Programming Functions: Sequencing, Delays, Step Editing (with Insert and Delete)

Sequence (macro) Capability: Commands per key limited only by memory

COM Port: 3-Pin, RS232 Signal Compatible

Cloning: Via 3-Pin COM Port

Sleep Mode: Begins 6 seconds after inactivity for Normal Operation (adjustable with DD4)
             Begins 30 seconds after inactivity when in Program Modes

Wake up: Activates with motion, a key press, or COM Port Connection

Lighted Panel Turn ON/OFF Time (with simultaneous press of VOL keys): 5 seconds

Power Source: 4 "AAA" Batteries (Alkaline recommended)

Dimensions: 7-3/4" x 2-3/8" x 1-1/16" (196 mm x 60 mm x 27 mm)

Weight: 6.6 oz. (.93 kg)